Supplemental Language to Be Utilized with 40 CFR Part 96
For Output-based Allocation of NO_x Emission Allowances
Submitted by Joel Bluestein, P. E., Director, Coalition for Gas-based Environmental Solutions
For February 3-4 Workgroup Meeting

SUPPLEMENTAL LANGUAGE TO BE UTILIZED WITH 40 CFR PART 96 FOR OUTPUT-BASED ALLOCATION OF NO_x EMISSION ALLOWANCES

§ 96.2 Definitions.

The terms used in this part shall have the meanings set forth in this section as follows:

* * *

Cogeneration unit means an energy-producing device that sequentially generates electric and thermal or mechanical energy.

* * *

Commence commercial operation means to have begun to produce steam, gas, or other heated medium or to generate electricity for sale or use, including test generation. Except as provided in **§** 96.5, for a unit that is a NOx Budget unit under **§** 96.4 on the date the unit commences commercial operation, such date shall remain the unit's date of commencement of commercial operation even if the unit is subsequently modified, reconstructed, or repowered. Except as provided in **§** 96.5 or subpart I of this part, for a unit that is not a NOx Budget unit under **§** 96.4 on the date the unit commences commercial operation, the date the unit becomes a NOx Budget unit under **§** 96.4 shall be the unit's date of commencement of commercial operation.

Electric output means the electric generation (in MWh/time) from an electric generating device.

* * *

NOx Budget unit means a unit that is subject to the NOx Budget Trading Program under § 96.4 or § 96.80.

* * *

Operating means, with regard to a unit under **§§** 96.22(d)(2) and 96.80, having documented electric output or thermal output for more than 876 hours in the 6 months immediately preceding the submission of an application for an initial NOx Budget permit under **§** 96.83(a).

* * *

Output means electric output or thermal output.

* * *

Thermal output means the thermal energy from a heat source (in mmBtu/time) that is available for use in another process after the subtraction of heat for boiler feed or combustion air preheating or other heat recovery for combustion.

* * *

Unit means a stationary boiler, combustion turbine, combined cycle system or any other device which serves an electric generator.

* * *

Unit load means the total (i.e., gross) output of a unit in any control period (or other specified time period) expressed in terms of:

(1) The total electric output (MWh) produced by the unit, including generation for use within the plant; or

(2) In the case of a unit that produces thermal output rather than electric output, the total thermal output (mmBtu) produced by the unit, including steam for use by the unit.

* * *

Unit operating day means a calendar day in which a unit combusts any fuel or generates electric output or thermal output.

Unit operating hour or *hour of unit operation* means any hour (or fraction of an hour) during which a unit combusts any fuel or generates electric output or thermal output.

Utilization means the electric output for electric generating units (in MWh/time) or the thermal output for non-electric generating units (in mmBtu/time)for the control period in each year.

96.3 Measurements, abbreviations, and acronyms.

* * *

MWh-megawatt electrical per hour

96.42 NOx allowance allocations.

(a)(1) The unit output used for calculating NOx allowance allocations for each NOx Budget unit under 96.4 will be:

(A) For a NOx allowance allocation under 96.41(a), the average of the two highest amounts of the unit s electric output for the control periods in 1995, 1996, and 1997 if the unit is under 96.4(a)(1) or the thermal output during the control period in 1995 (in mmBtu) if the unit is under 96.4(a)(2);

(B) For a NOx allowance allocation under 96.41(b), the unit s electric output for the control period in the year that is four years before the year for which the NOx allocation is being calculated if the unit is under 96.4(a)(1) or a cogeneration unit under 96.4(a)(2), or the thermal output during the control period in the year that is four years before the year for which the NOx allocation is being calculated if the unit is under 96.4(a)(2) or a cogeneration unit under 96.4(a)(1); and

(C) For purposes of paragraphs (a)(1)(A) and (a)(1)(B) above, the output for a cogeneration unit under either 96.4(a)(1) or (a)(2) shall be the electric output and thermal output for the relevant control periods.

(2) The unit s electric output for the control period in each year specified under paragraph (a)(1) of this section will be determined as reported to the Energy Information Administration on form 767 or form 759. Electric output will be based on the best available data reported to the permitting

authority for the unit if the unit was not otherwise subject to the reporting requirements under these forms for the year.

(b) For each control period under 96.41, the permitting authority will allocate to all NOx Budget units under 96.4(a)(1) and cogeneration units under §96.4(a)(2) in the State that commenced operation before May 1 of the period used to calculate electric output under paragraph (a)(1) of this section, a total number of NOx allowances equal to 95 percent in 2003, 2004, and 2005, or 98 percent thereafter, of the tons of NOx emissions in the State trading program budget apportioned to electric generating units under 96.40 in accordance with the following procedures:

(1) The permitting authority will allocate NOx allowances in an amount equaling 1.5 lb/MWh multiplied by the electric output determined under paragraph (a) of this section to each NOx Budget unit under 96.4(a)(1) and cogeneration units under 96.4(a)(2), rounded to the nearest whole NOx allowance as appropriate.

(2) If the initial total number of NOx allowances allocated to all NOx Budget units under 96.4(a)(1) in the State for a control period under paragraph (b)(1) of this section does not equal 95 percent in 2003, 2004, and 2005, or 98 percent thereafter, of the number of tons of NOx emissions in the State trading program budget apportioned to electric generating units, the permitting authority will adjust the total number of NOx

allowances allocated to all such NOx Budget units for the control period under paragraph (b)(1) of this section so that the total number of NOx allowances allocated equals 95 percent in 2003, 2004, and 2005, or 98 percent thereafter, of the number of tons of NOx emissions in the State trading program budget apportioned to electric generating units. This adjustment will be made by: multiplying each unit s allocation by 95 percent in 2003, 2004, and 2005, or 98 percent thereafter, of the number of tons of NOx emissions in the State trading program budget apportioned to electric generating units divided by the total number of NOx allowances allocated under paragraph (b)(1) of this section, and rounding to the nearest whole NOx allowance as appropriate.

(c) For each control period under 96.41, the permitting authority will allocate to all NOx Budget units under 96.4(a)(2) and cogeneration units under 96.4(a)(1) in the State that commenced operation before May 1 of the period used to calculate thermal output under paragraph (a)(1) of this section, a total number of NOx allowances equal to 95 percent in 2003, 2004, and 2005, or 98 percent thereafter, of the tons of NOx emissions in the State trading program budget apportioned to non-electric generating units under 96.40 in accordance with the following procedures:

(1) The permitting authority will allocate NOx allowances in an amount equaling 0.2 lb/mmBtu multiplied by the thermal

output determined under paragraph (a) of this section to each NOx Budget unit under 96.4(a)(2) and cogeneration units under 96.4(a)(1), rounded to the nearest whole NOx allowance as appropriate.

(2) If the initial total number of NOx allowances allocated to all NOx Budget units under 96.4(a)(2) in the State for a control period under paragraph (c)(1) of this section does not equal 95 percent in 2003, 2004, and 2005, or 98 percent thereafter, of the number of tons of NOx emissions in the State trading program budget apportioned to non-electric generating units, the permitting authority will adjust the total number of NOx allowances allocated to all such NOx Budget units for the control period under paragraph (c)(1) of this section so that the total number of NOx allowances allocated equals 95 percent in 2003, 2004, and 2005, or 98 percent thereafter, of the number of tons of NOx emissions in the State trading program budget apportioned to non-electric generating units. This adjustment will be made by: multiplying each unit s allocation by 95 percent in 2003, 2004, and 2005, or 98 percent thereafter, of the number of tons of NOx emissions in the State trading program budget apportioned to non-electric generating units divided by the total number of NOx allowances allocated under paragraph (c)(1) of this section, and rounding to the nearest whole NOx allowance as appropriate.

(d) For each control period under 96.41, the permitting authority will allocate NOx allowances to NOx Budget units under 96.4 in the State that commenced operation, or is projected to commence operation, on or after May 1 of the period used to calculate thermal output under paragraph (a)(1) of this section, in accordance with the following procedures:

(1) The permitting authority will establish one allocation set-aside for each control period. Each allocation set-aside will be allocated NOx allowances equal to 5 percent in 2003, 2004, and 2005, or 2 percent thereafter, of the tons of NOx emissions in the State trading program budget under 96.40, rounded to the nearest whole NOx allowance as appropriate.

(2) The NOx authorized account representative of a NOx Budget unit under paragraph (d) of this section may submit to the permitting authority a request, in writing or in a format specified by the permitting authority, to be allocated NOx allowances for no more than five consecutive control periods under 96.41, starting with the control period during which the NOx Budget unit commenced, or is projected to commence, operation and ending with the control period preceding the control period for which it will receive an allocation under paragraph(b)or (c) of this section. The NOx allowance allocation request must be submitted prior to May 1 of the first control period for which the NOx allowance allocation is

requested and after the date on which the permitting authority issues a permit to construct the NOx Budget unit.

(3) In a NOx allowance allocation request under paragraph (d)(2) of this section, the NOx authorized account representative may request for a control period NOx allowances in an amount that does not exceed 1.5 lb/MWh multiplied by the NOx Budget unit s nameplate capacity (in MWe) multiplied by the number of hours remaining in the control period starting with the first day in the control period on which the unit operated or is projected to operate for units under 96.4(a)(1) and cogeneration units under 96.4(a)(2).

(4) In a NOx allowance allocation request under paragraph (d)(2) of this section, the NOx authorized account representative may request for a control period NOx allowances in an amount that does not exceed 0.2 lb/mmBtu multiplied by the NOx Budget unit s maximum design thermal output (in mmBtu/hr) multiplied by the number of hours remaining in the control period starting with the first day in the control period on which the unit operated or is projected to operate for units under 96.4(a)(2) and cogeneration units under 96.4(a)(1).

(5) The permitting authority will review, and allocate NOx allowances pursuant to, each NOx allowance allocation request under paragraph (d)(2) of this section in the order that the request is received by the permitting authority.

(i) Upon receipt of the NOx allowance allocation request, the permitting authority will determine whether, and will make any necessary adjustments to the request to ensure that, for units under 96.4(a)(1), the control period and the number of allowances specified are consistent with the requirements of paragraphs (d)(2) and (3) of this section and, for units under 96.4(a)(2), the control period and the number of allowances specified are consistent with the requirements of paragraphs(d)(2) and (4) of this section.

(ii) If the allocation set-aside for the control period for which NOx allowances are requested has an amount of NOx allowances not less than the number requested (as adjusted under paragraph (d)(5)(i) of this section), the permitting authority will allocate the amount of the NOx allowances requested (as adjusted under paragraph (d)(5)(i) of this section) to the NOx Budget unit.

(iii) If the allocation set-aside for the control period for which NOx allowances are requested has a smaller amount of NOx allowances than the number requested (as adjusted under paragraph (d)(5)(i) of this section), the permitting authority will deny in part the request and allocate only the remaining number of NOx allowances in the allocation set-aside to the NOx Budget unit.

(iv) Once an allocation set-aside for a control period has been depleted of all NOx allowances, the permitting authority

will deny, and will not allocate any NOx allowances pursuant to, any NOx allowance allocation request under which NOx allowances have not already been allocated for the control period.

(6) Within 60 days of receipt of a NOx allowance allocation request, the permitting authority will take appropriate action under paragraph (d)(5) of this section and notify the NOx authorized account representative that submitted the request and the Administrator of the number of NOx allowances (if any) allocated for the control period to the NOx Budget unit.

(e) For a NOx Budget unit that is allocated NOx allowances under paragraph (d) of this section for a control period, the Administrator will deduct NOx allowances under 96.54(b) or (e) to account for the actual utilization of the unit during the control period. The Administrator will calculate the number of NOx allowances to be deducted to account for the unit s actual utilization using the following formulas and rounding to the nearest whole NOx allowance as appropriate, provided that the number of NOx allowances to be deducted shall be zero if the number calculated is less than zero:

NOx allowances deducted for actual utilization for units under 96.4(a)(1) and cogeneration units under 96.4(a)(2)= (Unit s NOx allowances allocated for control period) - (Unit s actual control period utilization x 1.5 lb/MWh); and

NOx allowances deducted for actual utilization for units under 96.4(a)(2) and cogeneration units under 96.4(a)(1)= (Unit

s NOx allowances allocated for control period) - (Unit s actual control period utilization x 0.2 lb/mmBtu)

where:

Unit s NOx allowances allocated for control period is the number of NOx allowances allocated to the unit for the control period under paragraph (d) of this section; and

Unit s actual control period utilization is the utilization (in MWh), as defined in 96.2, of the unit during the control period.

(f) After making the deductions for compliance under 96.54(b) or (e) for a control period, the Administrator will notify the permitting authority whether any NOx allowances remain in the allocation set-aside for the control period. The permitting authority will allocate any such NOx allowances to the NOx Budget units in the State using the following formula and rounding to the nearest whole NOx allowance as appropriate:

Unit s share of NOx allowances remaining in allocation set-aside = Total NOx allowances remaining in allocation set-aside x (Unit s NOx allowance allocation ÷ (State trading program budget excluding allocation set-aside)

where:

Total NOx allowances remaining in allocation set-aside is the total number of NOx allowances remaining in the allocation set-aside for the control period to which the allocation set-aside applies;

Unit s NOx allowance allocation is the number of NOx allowances allocated under paragraph (b) or (c) of this section to the unit for the control period to which the allocation set-aside applies; and

State trading program budget excluding allocation set-aside is the State trading program budget under 96.40 for the control period to which the allocation set-aside applies multiplied by 95 percent if the control period is in 2003, 2004, or 2005 or 98 percent if the control period is in any year thereafter, rounded to the nearest whole NOx allowance as appropriate.